



# Aviation Investigation Final Report

<b>Location:</b>	Kodiak, Alaska	<b>Accident Number:</b>	ANC08LA055
<b>Date &amp; Time:</b>	April 21, 2008, 11:30 Local	<b>Registration:</b>	N3043E
<b>Aircraft:</b>	Cessna 180	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Sys/Comp malf/fail (non-power)	<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation		

## Analysis

The pilot was landing a tailwheel equipped airplane at the conclusion of a cross-country business flight. As the tailwheel touched down, it began to wobble, and the pilot applied the brakes. The left brake was ineffective, and the airplane ground looped to the right. As a consequence, the left main landing gear axle and wheel separated from the landing gear strut, and the airplane received structural damage. The pilot indicated that he previously had a malfunction of the left brake, which was remedied by the addition of brake fluid, but he did not find any leak at that time. The airplane was not inspected by NTSB or FAA personnel.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of control during the landing roll due to a failure or malfunction of the brake system, resulting in a loss of control, and structural damage to the airplane.

## Findings

<b>Aircraft</b>	Landing gear brakes system - Malfunction
<b>Aircraft</b>	Directional control - Attain/maintain not possible
<b>Aircraft</b>	Main gear strut/axle/truck - Capability exceeded

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Sys/Comp malf/fail (non-power) (Defining event)
<b>Landing-landing roll</b>	Loss of control on ground

On April 21, 2008, about 1130 Alaska daylight time, a tundra tire-equipped Cessna 180 airplane, N3043E, sustained substantial damage following a loss of control during the landing roll at the Kodiak Airport, Kodiak, Alaska. The airplane was being operated as a visual flight rules (VFR) cross-country business flight under Title 14, CFR Part 91, when the accident occurred. The airplane was operated by the pilot. The private certificated pilot, and the two passengers, were not injured. Visual meteorological conditions prevailed, and no flight plan was filed. The flight originated from a private airstrip at Kasilof, Alaska, about 0930.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on April 21, the pilot reported that he was landing on the asphalt surface of runway 25, and as the tailwheel touched down, it began to wobble. The pilot said he applied the brakes, but the left brake was ineffective, and the airplane ground-looped to the right. The left main landing gear axle and the left main wheel, separated from the landing gear strut. The airplane received damage to the left main gear and the firewall.

In the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1) submitted by the pilot, he reported that the airplane previously had a malfunction of the left brake, but he did not specify the date of the previous problem. He said he serviced the brake system with hydraulic fluid, which resolved the problem, and indicated that he did not find a leak in the brake system.

Following the accident, the airplane was not inspected by NTSB or FAA personnel.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	61, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	March 13, 2008
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	March 13, 2008
<b>Flight Time:</b>	1350 hours (Total, all aircraft), 350 hours (Total, this make and model), 1350 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N3043E
<b>Model/Series:</b>	180	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	30898
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	December 8, 2007 Annual	<b>Certified Max Gross Wt.:</b>	2700 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-470
<b>Registered Owner:</b>	Brian D. Nolan	<b>Rated Power:</b>	230
<b>Operator:</b>	Brian D. Nolan	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	PADQ,78 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	11:42 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Overcast / 1900 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	100°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.35 inches Hg	<b>Temperature/Dew Point:</b>	3°C / -1°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Kasilof, AK	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Kodiak, AK (PADQ)	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	09:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Kodiak PADQ	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	78 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	25	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7542 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop;Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	57.75,-152.493896

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Erickson, Scott
<b>Additional Participating Persons:</b>	Keith Fiero; FAA-AL-ANC FSDO 03; Anchorage, AK
<b>Original Publish Date:</b>	December 8, 2008
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=67913">https://data.ntsb.gov/Docket?ProjectID=67913</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).